

WHAT IS CLAIMED IS:

1. A wheeled vehicle comprising a frame, a front wheel steerably attached to the frame, a rear wheel attached to the frame, a motive member mounted to the frame and connected to at least one of the front wheel and the rear wheel, a control unit electrically connected to the motive member and comprising an outer housing, an accelerometer mounted within the outer housing and electrically communicating with the control unit, the accelerometer adapted to output a signal that varies with a leaning angle of the vehicle, said control unit adapted to compare said signal to a threshold signal indicative of a fall angle and said control unit further adapted to disable said motive member if said signal exceeds said threshold signal.
2. The vehicle of Claim 1, wherein said accelerometer is mounted generally horizontally.
3. The vehicle of Claim 1, wherein said output varies as a mathematical sine of said leaning angle of the vehicle.
4. A wheeled vehicle comprising a frame, a front wheel steerably attached to the frame, a rear wheel attached to the frame, a motive member mounted to the frame and connected to at least one of the front wheel and the rear wheel, a control unit electrically connected to the motive member and comprising an outer housing, an accelerometer mounted within the outer housing and electrically communicating with the control unit, the accelerometer adapted to output a signal that varies with the rate of forward deceleration, said control unit adapted to compare said signal to a collision threshold signal and said control unit further adapted to disable said motive member if said signal exceeds said collision threshold signal.
5. The vehicle of Claim 4, wherein said accelerometer is mounted generally horizontally.
6. The vehicle of Claim 4, wherein said output varies as a mathematical sine of said pitching angle of the vehicle caused by rapid deceleration.
7. A wheeled vehicle comprising a frame, a front wheel steerably attached to the frame, a rear wheel attached to the frame, a motive member mounted to the frame and connected to at least one of the front wheel and the rear wheel, a control unit electrically

connected to the motive member and comprising an outer housing, an accelerometer mounted within the outer housing and electrically communicating with the control unit, the accelerometer adapted to output a signal that varies with the rate of forward acceleration, said control unit adapted to compare said signal to a wheelie threshold signal and said control unit further adapted to reduce the output of said motive member if said signal exceeds said wheelie threshold signal.

8. The vehicle of Claim 7, wherein said accelerometer is mounted generally horizontally.

9. The vehicle of Claim 7, wherein said output varies as a mathematical sine of said pitching angle of the vehicle caused by rapid deceleration.

10. A wheeled vehicle comprising

a frame, a front wheel steerably attached to the frame, a rear wheel attached to the frame, a motive member mounted to the frame and connected to at least one of the front wheel and the rear wheel, a battery supported by the frame,

a control unit electrically connected to the motive member and comprising an outer housing, an accelerometer electrically communicating with the control unit,

said control unit evaluating a lean angle of said vehicle based upon output of said accelerometer, said battery being in electrical communication with said accelerometer through a control unit power circuit,

an antitheft device being separable from said outer housing and being adapted for selective connection to said control unit and said outer housing, said antitheft device comprising an alarm power circuit that is in electrical communication with an alarm device, a vibration detection circuit and said accelerometer, and

said vibration detection circuit detecting an output from said accelerometer and activating said alarm device when said output from said accelerometer exceeds a preset level.

11. The vehicle of Claim 10, wherein said power circuit for said control unit and said alarm power circuit both communicate with said accelerometer and are separated by a diode such that power can flow toward said alarm power circuit from said power circuit for

said control unit but power cannot flow toward said power circuit for said control unit from said alarm power circuit.

12. The vehicle of Claim 10, wherein said accelerometer is mounted within said outer housing of said control unit.

13. A method of controlling operations of a vehicle during an accident, the vehicle having an electronic control unit that comprises a control circuit that is in electrical communication with a semiconductor accelerometer, said electronic control unit adapted to control operation of a motive member and a fuel pump, said method comprising sensing an output signal from said accelerometer, comparing said output signal with a preset threshold level, if said output signal exceeds said preset threshold level then disabling said motive member.

14. The method of Claim 13, wherein said motive member is only disabled if said output signal exceeds said preset threshold level for a preset period of time.

15. The method of Claim 14, wherein said output signal is indicative of a leaning angle of said vehicle.

16. The method of Claim 15, wherein said preset threshold level generally corresponds to a non-recoverable lean angle.

17. The method of Claim 14 further comprising disabling a fuel pump associated with said motive member if said output signal exceeds said preset threshold level for a preset period of time.

18. The method of Claim 14, wherein said output signal is indicative of a deceleration rate of said vehicle.

19. The method of Claim 18, wherein said preset threshold level generally corresponds to a rate of acceleration greater than that encountered during a panic braking operation.

20. The method of Claim 13, wherein said motive member is disabled by interrupting ignition.

21. The method of Claim 13, wherein said motive member is disabled by interrupting fuel injection.

22. The method of Claim 13 further comprising placing the vehicle in a neutral upright position, obtaining a correction reading from said accelerometer, storing said correction reading and adjusting said output signal with said correction reading.

23. The method of Claim 22, wherein obtaining said correction reading is performed after placing said electronic control unit into a test mode.

24. The method of Claim 22, wherein said correction reading is written to an EEPROM.

25. A method of controlling operations of a vehicle during acceleration, the vehicle having an electronic control unit that comprises a control circuit that is in electrical communication with a semiconductor accelerometer, said electronic control unit adapted to control operation of a motive member, said method comprising sensing an output signal from said accelerometer, comparing said output signal with a preset threshold level, if said output signal exceeds said preset threshold level then decreasing an output of said motive member.

26. The method of Claim 25 further comprising decreasing said output only if said output signal exceeds said preset threshold level for a preset period of time.

27. The method of Claim 25 further comprising sensing a throttle position, comparing said sensed throttle position to a preset throttle angle and decreasing said output of said motive member only if said output signal from said accelerometer exceeds said preset threshold level and said sensed throttle position is greater than said preset throttle angle.

28. The method of Claim 27 further comprising sensing a vehicle speed, comparing said vehicle speed to a threshold speed and decreasing said output from said motive member only if said output signal from said accelerometer exceeds said preset threshold level, said sensed throttle position is greater than said preset throttle angle and said sensed vehicle speed is less than said threshold speed.

29. The method of Claim 25, wherein said motive member is an internal combustion engine and decreasing an output of said motive member comprises selectively interrupting ignition of said engine.

30. The method of Claim 25, wherein said motive member is an internal combustion engine and decreasing an output of said motive member comprises selectively interrupting fuel injection of said engine.

31. The method of Claim 25, wherein decreasing an output of said motive member comprises stepping the output down over a period of time.

32. The method of Claim 31, wherein said output is stepped down based at least in part upon a sensed vehicle speed.

33. The method of Claim 25 further comprising returning said output to a normal output level after said output has been stepped down.

34. The method of Claim 33, wherein said output is returned to normal over a period of time.

35. The method of Claim 34, wherein said output is returned to normal in a series of increments.